Nissequogue River, Lower (1702-0025) MinorImpacts

Waterbody Location Information

Revised: 08/19/2010

Water Index No:	(MW5.3) LIS- 62			**Drain Basin:**	Atlantic-Long Island Sound
Hydro Unit Code:	02030201/070	**Str Class:**	SC		Northern Long Island
Waterbody Type:	Estuary			**Reg/County:**	1/Suffolk Co. (52)
Waterbody Size:	529.2 Acres			**Quad Map:**	SAINT JAMES (R-28-1) ...
Seg Description:	reach from mouth to Philips Mill Pond (tidal portion)				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Aquatic Life	Threatened	Suspected
Recreation	Stressed	Known

Type of Pollutant(s)

Known:	PATHOGENS
Suspected:	Nutrients
Possible:	Silt/Sediment

Source(s) of Pollutant(s)

Known:	OTHER SANITARY DISCH, URBAN/STORM RUNOFF
Suspected:	On-Site/Septic Syst
Possible:	- - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/Reg1 **Resolution Potential:** High
TMDL/303d Status: n/a

Further Details

Overview
Recreational uses in this portion of Nissequogue River are considered to experience minor impacts due to pathogen levels that result in shellfishing restrictions in the area. Urban and storm runoff are the primary sources of pathogens, although various other sources such as municipal wastewater, inadequate onsite treatment/septic systems, boat discharges, waterfowl may also contribute.

Shellfishing Use
Shellfish harvesting for consumption purposes in Nissequogue River (Shellfish Growing Area #38) is designated as uncertified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. This designation is based on results of water quality monitoring and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria for pathogens. Certified/uncertified shellfish area designations are revised regularly; for detailed descriptions of current designations, go to www.dec.ny.gov/regs/4014.html. (DEC/DFWMR, Region 1, July 2010)

Although this waterbody is monitored through the shellfish program, its class SC designation does not include shellfishing as an appropriate use so these waters are not assessed for support of shellfishing use. However, based on the shellfishing restrictions, other recreational uses are considered to be stressed. (DEC/DFWMR, BMR and DEC/DOW, BWAM/WQAS, July 2010)

Source Assessment
Storm and urban runoff in the watershed introduce pathogens to the waters affecting shellfish consumption, public bathing and other recreation. The watershed is highly developed, resulting in significant stormwater runoff loads. Significant summer boat traffic also affects water quality. (DEC/DOW, Region 1, October 2009)

Long Island Sound Study
This waterbody is included in the Long Island Sound Study (LISS), a bi-state partnership consisting of federal and state agencies, user groups, concerned organizations, and individuals dedicated to fully restoring and protecting the waters of the Sound. The LISS was formed by EPA, New York, and Connecticut in 1985 to focus on the overall ecosystem. In 1994, the LISS completed a Comprehensive Conservation and Management Plan that identified seven issues: low dissolved oxygen (hypoxia), toxic contamination, pathogen contamination, floatable debris, living resources and habitat management, land use and development, public involvement and education. The LISS partners have made significant strides to restore and protect Long Island Sound, giving priority to hypoxia, habitat restoration, public involvement and education, and water quality monitoring. (DEC/DOW, BWAM/WQMS, July 2010)

Water Quality Sampling
A biological assessment of Nissequogue River above this tidal reach in Smithtown (at Route 25 in Caleb State Park) was conducted as part of the RIBS biological screening effort in 2008. Sampling results indicated non-impacted conditions. Such samples are dominated by clean-water species and are most similar to a natural community with minimal human impacts. Some additional species, including sensitive non-native species, and additional biomass may be present; the samples reveal no, or only incidental, anomalies. Slightly impacted conditions were found during sampling conducted at this site in 2003. Though this site is upstream of the segment, it is considered to be somewhat representative of water quality in the downstream reach. (DEC/DOW, BWAM/SBU, January 2010)

Watershed Management
The river is also among the most productive anadromous salmonid spawning areas in the state. Increases in storm water discharges, urban runoff are considered a threat to water quality in this popular fishing waterway. The impacts of on-site septic systems in the watershed are also a concern. (DEC/DOW, Region1, October 2000).

Segment Description
This segment includes the total area of the freshwater portion of the Nissequogue River and all tributaries below Phillips Mill Pond. These waters are designated Class SC.